

From: [REDACTED]
To: [REDACTED] [Overbay, Michael](#); [Brett Shipp](#)
Subject: map for your use
Date: Friday, January 24, 2014 5:24:15 PM
Attachments: [methane pattern.docx](#)

Mr. Lipsky,

Thanks for the conversation today. I look forward to any documentation concerning the methane issue in your well that you will share with me. As I mentioned I am preparing a paper for submission to a scientific publication and appreciate any information you can provide. I have been fortunate to have help from the NRDC with the FOIA process and been able to get some of the data.

You asked me about the possible effect of a geologic fault on your situation. I have attached a rough map I made using the Range data I have from the FOIA process. The dotted line is the most likely orientation of a fault in your area. The two yellow lines are the approximate subsurface locations of the gas well boreholes. Your wells are labeled DOM1 and DOM 1A. As you can see there appears to be a trend of elevated and increasing with time methane in the water wells along this potential fault line. I do not have any data from the Range sampling on your wells since late 2010, but assume you will be seeing increasing levels as well.

You also asked about the difference between the Range and Duke methane values. In my opinion the Duke sampling methods are more accurate and you should accept their numbers as more representative of the actual methane levels in the wells. Their values also are consistent with the observations of bubbling/fizzing in the wells, while the Range values are too low to explain the physical evidence.

Hope you find this helpful,

Geoff

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Geoffrey Thyne PhD PG

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